

Claims

[c1] What is claimed is:

1.A method of processing color image data for printing on a color ink jet printer, the method comprising:
reading color image data from a source image, the source image containing color image data of at least a first color area and a second color area;
identifying a border region between the first color area and the second color area;
performing a pixel altering function to alter pixels of the source image along the border region between the first color area and the second color area;
converting the source image into a plurality of halftone images after performing the pixel altering function; and
printing the halftone images using ink of the first and second colors according to the first and second color areas.

[c2] 2.The method of claim 1 wherein the first color ink and the second color ink are two different types of ink.

[c3] 3.The method of claim 2 wherein the first color ink is a pigment-based ink and the second color ink is a dye-based ink.

- [c4] 4.The method of claim 1 wherein the first color is black and the second color is selected from a group consisting of cyan, magenta, yellow, light cyan, light magenta, orange, and green.
- [c5] 5.The method of claim 4 wherein the first color ink is a pigment-based ink and the second color ink is a dye-based ink.
- [c6] 6.The method of claim 1 wherein the pixel altering function comprises replacing pixels of the first color with pixels of another color.
- [c7] 7.The method of claim 1 wherein the pixel altering function comprises replacing pixels of the second color with pixels of another color.
- [c8] 8.The method of claim 1 wherein the pixel altering function comprises reducing a color saturation value for pixels of the first color.
- [c9] 9.The method of claim 1 wherein the pixel altering function comprises reducing a color saturation value for pixels of the second color.
- [c10] 10.The method of claim 1 further comprising calculating a first density of pixels of the first color, a second density of pixels of the second color, and comparing the

first density to the second density.

- [c11] 11.The method of claim 10 further comprising identifying the border region between the first color area and the second color area only if the first density and the second density match predetermined criteria which necessitates altering pixels along the border.
- [c12] 12.The method of claim 11 wherein if the first density is higher than the second density, the pixels along the border region are altered according to a comparison result between the first density and a first threshold level.
- [c13] 13.The method of claim 11 wherein if the second density is higher than the first density, the pixels along the border region are altered according to a comparison result between the first density and a second threshold level.